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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/605,390	06/28/2000	Jean-Francois Delmas	2000 0918A	6568

7590

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EXAMINER

GUADALUPE, YARITZA

ART UNIT

PAPER NUMBER

2859

DATE MAILED: 07/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/605,390

Applicant(s)

DELMAS ET AL.

Examiner

Yaritza Guadalupe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 5/15/02; 5/31/02 and 8/20/02.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 6.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1 – 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton et al. ( US 5,119,564 ) in view of Bame ( US 6,299,122 ).

Hamilton et al. discloses as part of the Prior Art ( Figures 1 and 2 ) a metrology target marker device comprising a target member ( 11 ) and a support ( 10 ) for that target member, characterized in that the support includes a receptacle head ( See the upward portion in element # 10 ) for inserting a target member, that receptacle head including a housing for inserting the target member opening to the outside via an outwardly flared frustoconical seat, and the target member ( 11 ) includes a flange having a spherical annular lateral surface adapted to bear tangentially against the frustoconical seat ( As suggested from Figure 2 ), and a plate ( 12 ) extending out of the support and upstanding perpendicularly on the flange in an equatorial plane of a spherical surface ( 11 ) of which the lateral surface of the spherical ring flange is part, that plate having two parallel plane faces.

Hamilton et al. also teaches a device comprising the plate ( 12 ) being upstanding on a circular increased thickness portion of one face of the flange, and also characterized in that the target member includes a generally cylindrical body ( 11 ) joined to the flange and adapted to be inserted into the housing of the receptacle head of the support ( 10 ). Hamilton et al. further discloses the support ( 10 ) includes a support base adapted to be anchored into a structure on which metrology measurements are to be effected. Hamilton et al. discloses the spherical surface ( 11 ) being part of a sphere considered to have a diameter approximately 25 mm to approximately 35 mm. Hamilton et al. discloses a member as part of the support ( 10 ) in the form of a ring forming a nut having an inside connecting means cooperating with an outside connecting means of the receptacle head of the support and an inside surface for clamping the flange against the head ( 12 ).

Hamilton et al. does not discloses the at least one of the two parallel plane faces having a retroreflecting or covered with a retroreflecting coating and including a hole (46) passing completely through it and centered on an axis perpendicular to the faces of the plate and passing through the center of said spherical surface as stated in claim 1. Hamilton et al. does not discloses the hole (46) passing through the plate (45) has at least one frustoconical region (461) through which it opens to the outside, in a flared fashion, to optimize inclined sighting as stated in claim 2. Hamilton et al. does not discloses the hole (46) passing through the plate has two frustoconical regions (461) through which it opens to the outside on respective opposite sides of

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the plate, in flared fashion, to optimize inclined sighting as stated in claim 3. Hamilton et al. does not disclose having both faces of the plate (45) are retroreflecting or covered with a retroreflecting coating as stated in claim 4.

Hamilton et al. does not disclose a device characterized in that the hole ( 46 ) passing through the plate ( 45 ) has at least one frustoconical region ( 461 ) through which it opens to the outside, in flared fashion, and the inclination of the wall of the frustoconical region to the axis on which the hole is centered is from approximately  $35^{\circ}$  to approximately  $45^{\circ}$  as stated in claim 5.

With respect to claims 1 – 5 : Bame discloses a target member and retroreflector device (12) having a spherical outer surface ( 14, 16 ) provided with a retroreflector mounted on the sphere ( 14 ). Bame also discloses at least two parallel plane faces having a retroreflecting or covered with a retroreflecting coating and including a hole ( 42 ) passing completely through it and centered on an axis perpendicular to the faces of the plate and passing through the center of said spherical surfaces and having at least one frustoconical region through which it opens to the outside, in a flared fashion, to optimize inclined sighting. Bame discloses the inclination of the wall of the frustoconical region to the axis on which the hole is centered considered to be approximately of  $35^{\circ}$  to approximately  $45^{\circ}$ . Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to replace the target member disclosed by Hamilton et al. with a target member as taught by Bame in order to allow measurements of surface contours in multiple dimensions and curvatures.

*Conclusion*

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The following references are considered of relevance to the present application :

- a. Bridges et al. ( US 5,861,956 )
- b. Buckley ( US 4,970,794 )
- c. Allen ( US 4,549,360 )
- d. Morghen ( US 4,964,218 )
- e. Miller et al. ( US 4,488,809 )
- f. Meier et al. ( US 5,893,214 )

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yaritza Guadalupe whose telephone number is (703)305 -5676. The examiner can normally be reached on 9:00 AM - 6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F.F. Gutierrez can be reached on (703) 308-3875. The fax phone numbers for the organization where this application or proceeding is assigned are (703)746-4467 for regular communications and (703)872-9318 for After Final communications.

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Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0956.



Yaritza Guadalupe  
Patent Examiner  
Art Unit 2859  
July 1, 2003

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